

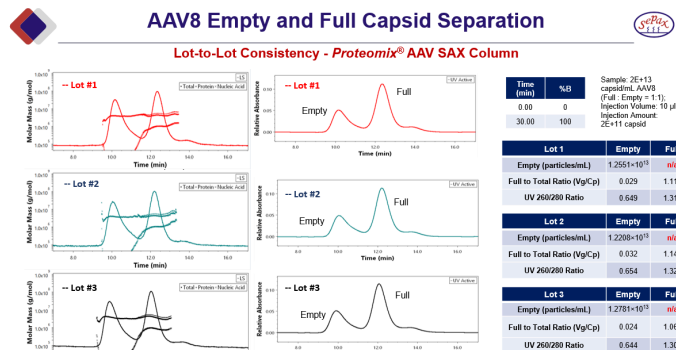
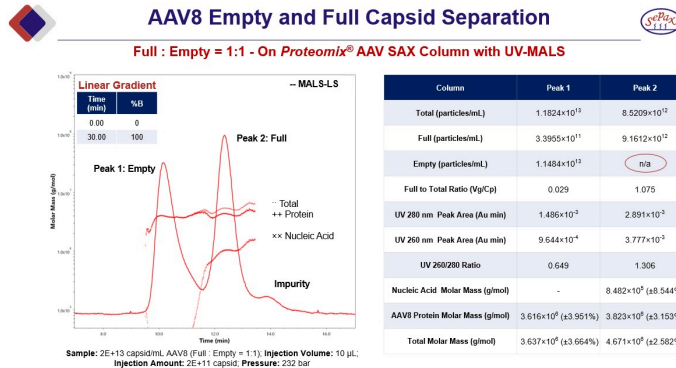
## Improving Empty and Full AAV Capsids Separation and Quantitation by Proteomix AAV SAX with UV-MALS

**Adeno-associated viruses (AAV)** are one of the most used viral vectors for gene therapy and vaccines to deliver therapeutic genes. Quantitation of **empty and full AAV capsids** is critical to understanding and ensuring product quality and potential efficacy.

Analytical ultra-centrifugation (AUC) is the classical and golden standard technique for this application; however, it requires long hours of processing time and a large amount of sample consumption. UV absorbance at 260/280 nm ratio has also been widely used for the quick estimation of empty and full capsids, but the accuracy can be compromised. Traditional anion exchange chromatography (AEX) based on relative surface charge differences was also reported to provide the potential separation; however, the AEX analytical products on the market often lack quantitative measurement to demonstrate the full separation of the empty and full capsid. Empty capsids may still be present in the AUC run of the fraction collected from the full capsid peak.

By improving its beads technology and surface coating chemistry with a tighter and more optimal ligand density range, Sepax introduces a new **Proteomix® AAV SAX** MALS columns, which are specifically designed for optimal separation of empty and full AAV capsids delivering a fast and easy quantitation method with excellent lot-to-lot consistency for analytical characterization and quality control:

- **Improving Separation of Empty and Full AAV Capsids:** higher resolution resolving power allowing for full separation and more accurate molecular weight calculations coupled with MALS in the applications.
- **Easy Linear Salt Gradient for User-Friendly Method Development:** A easy linear salt gradient method was used as an excellent starting point for method development and provided a user-friendly and flexible approach for developing analytical methods across a variety of AAV samples.
- **MALS Compatibility with Low Shedding and Accuracy:** AEX-MALS method was employed for accurate quantitation of empty and full capsids with low shedding and baseline noise.
- **Monosized Base Beads:** Precision-engineered monosized base beads provide excellent higher resolving power and improved column packing and lot-to-lot reproducibility for consistent and reliable performance techniques.
- **Low Pressure with High-Pressure Limit for Fast Run:** The beads have low pressure with a high-pressure limit, enabling up to 1 mL/min high throughput fast assay.
- **Easy to Scale up:** It can be scaled to preparative use with a similar run time.



Read More

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## Order Information

Part Number	Particle Size	Pore Size	ID × Length	Hardware
411303P-4605	3 μm	Non-Porous	4.6 × 50 mm	PEEK
411303P-4610	3 μm	Non-Porous	4.6 × 100 mm	PEEK

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